

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0000931

Owner: Kingsford Manufacturing Company
Address: 21200 Maries Road 314, Belle, MO 65013

Continuing Authority: Same as above
Address: Same as above

Facility Name: Kingsford Manufacturing Company
Address: 21200 Maries Road 314, Belle, MO 65013

Legal Description: N ½, SW ¼, Sec. 8, T40N, R7W, Maries County

Receiving Stream: Unnamed Tributary to Dry Fork Creek (U)
First Classified Stream and ID: Dry Fork Creek (C)(02041)
USGS Basin & Sub-watershed No.: (07140103-040001)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

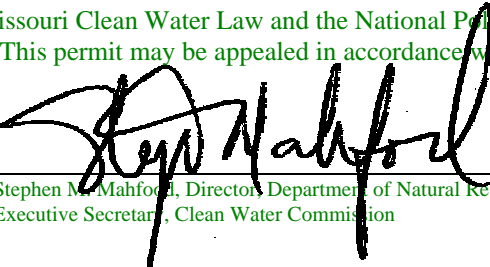
FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

April 18, 2003
Effective Date

April 17, 2008
Expiration Date
MO 780-0041 (10-93)


Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Jim Hull, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 - Industrial - Sanitary wastewater only - SIC # 4952

Extended aeration/sludge disposal is by contract hauler.

Design population equivalent is 60.

Design flow is 6,000 gallons per day.

Actual average flow is 3,500 gallons per day.

Design sludge production is 0.61 dry tons per year.

Outfall #002 - Tertiary Holding Basin - Plant washdown, firefighting, stormwater runoff, boiler blowdown, retort furnace water seal, water cooled A/C, - charcoal mfg. - SIC #2861

Two concrete settling basins, one earthen secondary basin, one tertiary earthen basin, and one irrigation system. Raw materials are recovered from the concrete settling basins and recycled. Water is recycled from secondary and tertiary basins as needed. The tertiary basin may discharge when irrigation is not feasible.

Design flow is 0.29 MGD, average flow is 0.083 MGD

Outfall #003 - Stormwater runoff - SIC #2861

Stormwater conveyance that terminates near the sanitary treatment plant. Samples shall be collected prior to where the wastewater discharge from the sanitary treatment plant enters the stream.

Design flow is 13.28 MGD.

Actual flow is dependent on precipitation.

Outfall #004 - Stormwater runoff - SIC #2861

Stormwater conveyance that originates upstream at the intermittent stream channel adjacent to the north side of the plant entrance road.

Design flow is 2.44 MGD.

Actual flow is dependent on precipitation.

Outfall #005 - Runoff from irrigation areas. The irrigation system is to be used in lieu of a discharge from the tertiary basin when irrigation is feasible.

Design flow is 0.11 MGD.

Average flow is 0.06 MGD.

Outfall #006 - Stream monitoring below Outfall #004 at property line in tributary to Dry Fork Creek.

FACILITY DESCRIPTION (continued)

Irrigation System Design - Outfall #005

Receiving Stream Watershed: Gaining stream setting.

Facility Type: Partial Irrigation System when feasible and lagoon discharge of excess flows.

Discharge may occur from the tertiary basin (Outfall #002) or from irrigation site. Primary and Secondary basins gravity flow to tertiary basin.

Primary Settling Basins (2):

Storage volume (min. to max. water levels) 209,440 gallons

Secondary Holding Basin:

Storage volume (min. to max. water levels) 1,800,000 gallons

Tertiary Holding Basin:

Freeboard 1.5 feet

Storage volume (min. to max. water levels) 800,000 gallons

Land Application:

Irrigation Volume /year: 8,133,000 gallons

Irrigation areas: 6 acres

Application rates/acre: 0.2 inch/hour; 0.75 inches/day; 3.0 inches/week, 50 inches/year

Equipment type: sprinklers

Vegetation: grass land

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 4 of 9	
					PERMIT NUMBER MO-0000931	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001- Sanitary Wastewater</u>						
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Biochemical Oxygen Demand ₅	mg/L		45	30	once/quarter***	grab
Total Suspended Solids	mg/L		45	30	once/quarter***	grab
pH - Units	SU	**		**	once/quarter***	grab
<u>Outfall #002 - Holding Basin Discharge - Tertiary Basin</u>						
Flow	MGD	*		*	once/month	24 hr. estimate
Total Suspended Solids	mg/L	110		70	once/month	grab
pH - Units	SU	**		**	once/month	grab
Total Organic Carbon	mg/L	*		*	once/month	grab
Oil & Grease	mg/L	15		10	once/month	grab
Sodium	mg/L	*		*	once/quarter***	grab
Chloride	mg/L	*		*	once/quarter***	grab
Total Petroleum Hydrocarbon	mg/L	15		10	once/quarter***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2003</u> .						
<u>Outfalls #003 & #004 - Stormwater runoff (Note 1)</u>						
Flow	MGD	*		*	once/year	grab
Total Petroleum Hydrocarbon	mg/L	15		10	once/year	grab
Total Suspended Solids	mg/L	*		*	once/year	grab
pH - Units	SU	**		**	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2003</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 5 of 9	
					PERMIT NUMBER MO-0000931	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #005</u> - Discharges and stormwater runoff from irrigation areas (Notes 2 & 3)						
Flow	MGD	*		*	once/month	grab
Total Suspended Solids	mg/l	110		70	once/month	grab
pH - Units	SU	**		**	once/month	grab
Oil & Grease	mg/L	15		10	once/month	grab
Total Petroleum Hydrocarbon	mg/L	15		10	once/quarter***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2003</u> .						
<u>Irrigation System</u> - Land Application Operational Monitoring (Note 4)						
Lagoon Freeboard	feet	*			once/month	measured
Irrigation Period	hours	*			daily	total
Volume Irrigated	gallons	*			daily	total
Application Area	acres	*			daily	total
Application Rate	inches/ acre	*			daily	total
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2004</u> .						
<u>Outfall #006</u> - Stream Monitoring						
Flow	mg/L	*			once/quarter	grab
Biochemical Oxygen Demand ₅	mg/L	*			once/quarter	grab
Total Suspended Solids	mg/L	*			once/quarter	grab
Ammonia Nitrogen as N	mg/L	*			once/quarter	grab
Nitrate/Nitrite as N	mg/L	*			once/quarter	grab
Oil and Grease	mg/L	*			once/quarter	grab
Dissolved Oxygen	mg/L	*			once/quarter	grab
pH - Units	SU	*			once/quarter	grab
Temperature (degrees)	°C	*			once/quarter	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2003</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. Effluent Limitations and Monitoring Requirements (continued)

- * Monitoring requirement only.
- ** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units
- *** Sample once per quarter in the months of March, May, July & October.

Note 1 - One stormwater runoff sample shall be collected each year. The results shall be submitted to the Department of Natural Resources with the annual report. If the results show levels above those limits specified for the outfall, the permittee shall submit written notification to the Department of Natural Resources within five days of the permittee's notification of the analytical results. The notification submitted to the department shall indicate the date(s) samples were collected, the analytical results, permit number and shall describe what steps have been taken to eliminate any violation in the future. A repeat sample shall be collected of storm water runoff resulting from the next rainfall greater than 0.3 inches after a violation has been reported. This sample shall be analyzed and this data shall also be submitted to the Department of Natural Resources.

Note 2 - Monitoring shall be conducted of overland flow and storm water runoff from the overland flow area. Monitoring shall be conducted at a location where drainage leaves the overland flow area, but before the flow enters the stream. This location must provide representative samples of the discharge. Monitor only when discharge occurs. Report as no-discharge when a discharge does not occur during the report period.

Note 3 - Records shall be maintained and summarized into an annual operating report which shall be submitted by January 28th of each year for the previous calendar year period. The report shall include the following:

- a. Record of maintenance and repairs performed during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
- b. A summary of the irrigation operations including freeboard at the start and end of the irrigation season, the number of days of irrigation for each month, the total gallons irrigated, the total acres used, crops grown, the application rate in inches/acre per day and for the year, the monthly and annual precipitation received at the facility and summary of testing results.

Note 4 - Lagoon freeboard shall be reported as lagoon water level in feet below the overflow level. See Special Conditions for Wastewater Irrigation System requirements.

C. SPECIAL CONDITIONS

- 1. Report as no-discharge when a discharge does not occur during the report period.
- 2. Outfalls must be marked in field and on the topographic site map submitted with the permit application.
- 3. Permittee will cease discharge by connection to area wide wastewater treatment system within 180 days of notice of its availability.
- 4. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
 - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.

C. SPECIAL CONDITIONS (continued)

5. Water Quality Standards

- a. Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- b. General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

6. This permit may be reopened and modified, or alternatively revoked and reissued, to:

- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
- (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
- (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

7. Annual Report.

An annual report is required for Outfall #005 in addition to the quarterly reporting under Section A of this permit for other outfalls. The annual report shall be submitted by January 28 of each year for the previous growing season from October 1 through September 30 or an alternate 12 month period approved by the Department and listed in the Operation and Maintenance Manual. This report shall be submitted using report forms approved by the Department and shall include a summary of the monitoring and record keeping required by the Special Conditions and Standard Conditions of this permit.

C. SPECIAL CONDITIONS (continued)

8. Wastewater Irrigation System

- a. Discharge Reporting. Any unauthorized discharge from the basin system or irrigation system shall be reported to the department as soon as possible but always within 24 hours. Discharge is allowed only as described in the Facility Description and Effluent Limitations sections of this permit.
- b. Irrigation Design. Design and operation shall be in accordance with 10 CSR 20-8.020(15). Permittee shall operate the land application system in accordance with the design parameters listed in the Facility Description section of this permit which are intended to minimize discharges from the land application site to the extent practicable:
 - (1) Partial Irrigation System. When the Facility Description is Partial Irrigation or combined irrigation and discharge, wastewater will be irrigated when feasible and discharges are allowed as specifically authorized under the Effluent Limitations and Monitoring Requirements in Section A of this permit.
- c. Lagoon Operating Levels. The minimum and maximum operating water levels for the storage lagoon shall be clearly marked. A minimum of two feet (2') of wastewater shall be kept in the earthen basins at all times. Wastewater shall be land applied whenever feasible based on soil and weather conditions and permit requirements.
- d. Emergency Spillway. Lagoons and earthen storage basins shall have an emergency spillway to protect the structural integrity of earthen structures during operation at near full water levels and in the event of overflow conditions. The spillway shall be at least one foot below top of berm. The department may waive the requirement for overflow structures on small existing basins.
- e. General Irrigation Requirements. The wastewater irrigation system shall be operated so as to provide uniform distribution of irrigated wastewater over the entire irrigation site. A complete ground cover of vegetation shall be maintained on the irrigation site unless the system is approved for row crop irrigation. Wastewater shall be land applied only during daylight hours to the extent practicable.
- f. Saturated/Frozen Conditions. There shall be no irrigation during frozen, snow covered, or saturated soil conditions. There shall be no irrigation on days when more than 0.2 inch of precipitation is received or when there is observation by operator of an imminent or impending rainfall event.
- g. Buffer Zones. There shall be no irrigation within 300 feet of any down gradient pond, lake, sinkhole, losing stream or water supply withdrawal; 100 feet of gaining streams or tributaries; 150 feet of dwelling; or 50 feet of the property line.
- h. Public Access Restrictions. Public access shall not be allowed to the irrigation site(s). Public access restrictions to land application sites shall be in accordance with requirements in 10 CSR 20-8.020(15)(b)(5).
- i. Equipment Checks during Irrigation. The irrigation system and application site shall be visually inspected at least once/4 hours during wastewater irrigation to check for equipment malfunctions and runoff from the irrigation site.

9. Runoff conveyance and control measures such as grass-lined channels, riprap and paved channels, temporary slope drains, paved flumes or chutes temporary diversion dikes or berms, permanent diversion dikes or berms, rights of way or perimeter diversion devices, retention and detention basins, sediment traps and barriers are required if necessary to ensure that Special Condition #5 is achieved. Slope drains may be constructed of pipe, fiber mats, rubble, portland cement concrete, bituminous concrete, plastic sheets, or other materials that will adequately control erosion.

D. SCHEDULE OF COMPLIANCE

1. Within one year of issuance of this permit, permittee shall submit a detailed Operation and Maintenance (O&M) Manual for the settling basins, holding basins, and irrigation system to the Department's Water Pollution Control Program and Regional Office for review and approval. The O&M Manual shall include, but is not limited to, the following:
 - a. minimum and maximum holding basin water levels;
 - b. procedures for determining when to start and stop irrigation based on soil moisture conditions, weather, crops and other pertinent factors;
 - c. procedures for irrigation management and discharge monitoring;
 - d. mowing, harvesting, and maintenance of vegetation on the irrigation fields and the earthen holding basin berms;
 - e. procedures and frequency for routine inspections of irrigation equipment during operations;
 - f. maintenance schedules for removing settled solids from the basins; and
 - g. record keeping forms.
2. Within one year of issuance of this permit, permittee shall submit an engineering report to determine if the size of the existing holding basin and irrigation systems are adequate for the intended use or propose an upgraded treatment system.